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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/504,438	02/15/2000	Azusa Umemoto	003-0639P	7879

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EXAMINER

KNEPPER, DAVID D

ART UNIT	PAPER NUMBER
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2654

DATE MAILED: 03/04/2004

17

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/504,438

Applicant(s)

UMEMOTO ET AL.

Examiner

David D. Knepper

Art Unit

2654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 and 23-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 and 23-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. Applicant's correspondence filed on 9 January 2004 (paper #16) has been received and considered. Claims 1-21 and 23-32 are pending.

Claims

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-6, 9-13, 16-19, 20, 21 and 23-32 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Schmandt (Audio Hallway...).

As per claim 29, an “information selector method” is taught by Schmandt’s Audio Hallway: a Virtual Acoustic Environment for Browsing:

“time-controlling a position of a plurality of sounds independently” (see figure 2, page 166 and also the time and space relationships of differences of sound in the hallway, figure 3, 4, pages 166, 167);

“selecting a sound” (see his entry is gained into the room, page 167, right column); and

“switching at least one...of sounds is associated with the type of information” (the user may travel the hallway to switch to different subjects related to sounds in different rooms, pages 166-167 and/or the user may switch among sound files inside a room, figures 5 and 6, page 168).

Claims 1, 9-13, 16, 18, 19, 27 and 28 are rejected under similar arguments as applied to claim 29. Claim 29 is considered narrower in scope than any of these other claims. The relationship to similar elements is clear. Schmandt teaches an extremely versatile interface allowing the user to select desired subjects based upon traversing the virtual hallway. The sequential playback of stored sounds and their associated subjects will vary by direction and amplitude based on the user's movement in the virtual space which not only includes the 'hallway' but also the 'rooms' that the user may enter to find more subject related materials.

Claim 2: "Controlling volume" is anticipated by the amplitude of figure 2.

Claim 3: "Arranging the position of each said sound on a circumference of substantially a circle" is anticipated by figures 5 and 6 described by Schmandt as showing sounds situated around and equidistant from the head.

Claim 4: "Commanding a position change of all of said sounds faster... returning the sound to a former position" is anticipated by his hallway metaphor which allows the user to navigate the hallway of sounds and control acceleration, page 166, bottom right.

Claim 5: "Selecting a sound of the maximum volume" is anticipated by the sounds shown in figures 2, 5 and 6.

Claim 6, 17: "Selecting a sound of interest" is the whole point of the entire article and is shown in various levels from the hallway and inside the rooms which allow the user to narrow choices based on the user's personal interests.

Claim 19: "Modifying a presentation status of said presentation means according to a predetermined condition" is anticipated by every condition and response by the user that enables the user to select where to go in the hallway and what and how to select sounds inside a room

(see pages 164-168). Information where “the presentation position altered” is inherent in the manner in which he changes the virtual positioning of sounds in the hallway and the rooms.

Claims 20-21, 23-28 and 30-32: A “Predetermined condition” is defined in claim 19 (see above) as limited to a “condition” that allows “presenting simultaneously a plurality of sound information with the presentation position altered”. This corresponds to the virtual positioning of the rooms along the hallway AND the positioning of subject related materials within each virtual room. Therefore, the claimed properties and conditions of sound are anticipated by the ability of Schmandt’s device to constantly adjust the presentation status of multiple sounds based on the position of the user as tracked both physically and within the virtual space.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7, 8, 14 and 15 are rejected under 35 U.S.C. § 103 as being unpatentable over Schmandt in view of Evans (Mapping an Auditory Space on a Graphical User Interface).

Claims 7 and 8: It is noted that Schmandt does not explicitly teach “displaying an image”. However, Evans teaches that it is obvious to map auditory space onto a GUI (see

abstract). Schmandt shows figures 3-6 that show a pictorial depiction of how the audio is mapped out to sound to the user. It is obvious to utilize Evan's mapping with a system such as Schmandt's because Evans teaches that it is particularly helpful for the user to provide auditory cues integrated with the complex visual stimuli of modern graphical user interfaces (GUI) (page 807) to better emulated the user's experience of the physical world (see page 808).

Claims 14, 15: The correlation between audio and visual (noted with regard to claims 7-8 above) is considered narrower in scope that the claimed "information other than audio". "Sequentially switches and presents" such information is considered obvious because the user is able to select more than one topic (Schmandt) in sequence and mapping a relationship between audio and visual data, the sequence of selection would obviously be true for all data so mapped.

6. Claims 7, 8 14 and 15 are rejected under 35 U.S.C. § 103 as being unpatentable over Schmandt in view of Goose (A 3D Audio Only Interactive Web Browser: Using Spatialization to Convey Hypermedia Document Structure).

Claims 7 and 8: It is noted that Schmandt does not explicitly teach "displaying an image". However, Goose teaches that it is obvious to map worl wide web data and other HTML document structure onto an interactive audio browser (page 363). Schmandt shows figures 3-6 that show a pictorial depiction of how the audio is mapped out to sound to the user. It is obvious to utilize Goose's mapping with a system such as Schmandt's because Goose teaches that it is well known to combine audio and visual information both sighted and visually impaired users with access to the WWW (abstract and page 363). It is also noted that Goose teaches the relationship between mapping various structural elements in the HTML document to audible

representations on page 367, figure 6.

Claims 14, 15: The correlation between audio and visual (noted with regard to claims 7-8 above) is considered narrower in scope than the claimed "information other than audio". "Sequentially switches and presents" such information is considered obvious because the user is able to select more than one topic (Schmandt) in sequence and mapping a relationship between audio and visual data, the sequence of selection would obviously be true for all data so mapped.

Remarks

7. New art is applied in order to show more specific evidence that the claims of the instant application are not patentable.

During the latest interview, it was also pointed out that the most prominent difference between the prior art (Kobayashi) and the invention is that the sound field in the prior art surrounds the user but in the applicant's device, the user is outside the sound field. It seems to the Examiner that the spatial relationships resulting from this difference in location of the user would be obvious.

Therefore, it would seem that the selection of topics, sounds (i.e. - sounds and their associated topics) and spatial positions thereof must be claimed with specificity to avoid the fact that the prior art has different topics associated with sounds that are arranged spatially so as to be differentiated by the user.

The current prior art applied has greater flexibility than Kobayashi had regarding the position of the user relative to the sound field.

Prior Art

8. Mynatt (Designing Audio Aura) teaches that it is well known to design audio cues that relate to items in the physical world.

Pit (Pointing in an Auditory Interface for Blind Users) teaches that it is well known to combine Graphical user interfaces with auditory interaction.

9. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

TC2600 Fax Center
(703) 872-9314

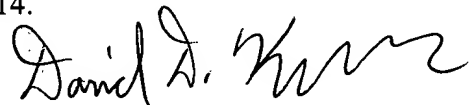
Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Knepper whose telephone number is (703) 305-9644. The examiner can normally be reached on Monday-Thursday from 07:30 a.m.-6:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil, can be reached on (703) 305-9645.

Any inquiry of a general nature or relating to the status of this application should be directed to customer service at (703) 306-0377.

The facsimile number for TC 2600 is (703) 872-9314.



David D. Knepper
Primary Examiner
Art Unit 2654